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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/800,949

03/15/2004

Shinichi Shirahama

8305-239US (NP149-1)

4470

570

7590

05/02/2008

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EXAMINER

MCAVOY, ELLEN M

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

05/02/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/800,949	Applicant(s) SHIRAHAMA ET AL.	
	Examiner Ellen M. McAvoy	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5,6 and 8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,6 and 8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicants' submissions: amendments to the claims, a Declaration under 37 CFR 1.132 and remarks, filed on 29 February 2008, have been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5, 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakazato et al (6,569,818) in combination with Dasai (5,064,546) or Ichihashi et al (5,792,731).

As previously set forth, Nakazato et al ["Nakazato"] disclose a lubricating oil composition having a low phosphorus (P) content of 0.01 to 0.1 weight %, and a sulfated ash of 0.1 to 1 weight %, which is comprised of (a) a major amount of mineral base oil having a low sulfur (S) content of at most 0.1 weight %, (b) an ashless alkenyl or alkyl-succinimide dispersant or derivative thereof in an amount of 0.01 to 0.3 weight % in terms of nitrogen atom content, (c) a metal-containing detergent such as an overbased alkaline earth metal salt of an alkylsalicylic acid in an amount of about 0.2 to 7 weight %, (d) a zinc dialkyl-dithiophosphate in an amount of

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0.01 to 0.1 weight % in terms of a phosphorus content, and (e) an oxidation inhibitor. Nakazato teaches that the lubricating oil composition may be used in internal combustion engines such as diesel engines equipped with an exhaust gas after-treatment system. See column 2, line 25 to column 3, line 59. Applicants' open-ended claim language "comprising" allows for the addition of other additives to the oil compositions such as the oxidation inhibitor component of the prior art. Nakazato teaches that the lubricating oil compositions may contain other auxiliary additives such as phosphoric acid esters, phosphorous acid esters and organic amide compounds such as oleylamide. Nakazato also allows for the addition of friction modifiers including amine salts. Nakazato teaches that the additives can be incorporated into the lubricating oil compositions in an amount ranging from 0.001 to 3 weight %. See column 7, line 59 to column 8, line 11. Applicants' invention set forth in independent claims 1 and 2 has been amended to include that component (D), the phosphorus-containing ashless anti-wear agent, is selected from the group consisting of amine phosphite salts of phosphorous acid esters. However, such amine phosphite salts are known in the art as friction modifiers as evidenced by Dasai, and as extreme pressure/anti-wear agents as evidenced by Ichihashi et al ["Ichihashi"].

Dasai discloses a lubricating oil composition comprising a base oil and from 0.01 to 5% by weight of a friction modifier which includes amine salts of phosphoric acid esters and amine salts of phosphorous acid esters which are represented by formulae (I), (II) and (III) in column 3. Phosphites are represented by formula (III) and the amine salts include oleylamines. See col. 4, lines 3-13. Ichihashi disclose a lubricant composition comprising a phosphorus-based extreme pressure additive which includes phosphite esters and phosphate esters and amine salts thereof. See column 3, lines 55 to column 4, line 58. Oleylamine is set forth in line 36. Thus having the

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prior art references before the inventors at the time the invention was made it would have been obvious to have added the amine phosphite salt of Dasai or Ichihashi to the oil composition of Nakazato if the additive's known imparted properties were so desired. The results set forth in the Declaration have been carefully considered; however, the examiner is of the position that it would be expected that differing anti-wear agents (phosphites and amine phosphate salts) would have differing results in anti-wear performance. The examiner is of the position that the results presented are not sufficient to rebut the established *prima facie* case of obviousness.

Claim Rejections - 35 USC § 103

Claims 1-3, 5, 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yagishita et al (6,306,801) in combination with Nakazato et al (6,569,818) and Dasai (5,064,546) or Ichihashi et al (5,792,731).

As previously set forth, Yagishita et al ["Yagishita"] disclose a lubricating oil composition suitable for use as a diesel engine oil which comprises a major amount of a lubricating base oil selected from mineral oils and synthetic oils and, as additives, (A) 0.5 to 20% by mass of acylated bissuccinimide, (B) 0.05 to 0.3 % by mass of zinc dithiophosphate in terms of the phosphorus content, and (C) 0.5 to 4.0 % by mass of metallic detergent in terms of the sulfated ash content, based on the total mass of the composition. See column 1, line 43 to column 2. Yagishita teaches that the metallic detergent component may be an overbased alkaline earth metal salicylate having a total base number of 100 to 450 mgKOH/g. See column 9. Applicants' invention differs by adding a phosphorus-containing ashless antiwear agent and, in dependent claim 2, by adding a fatty acid amide to the lubricating oil compositions. However,

Yagishita allows for the addition of known additives to the compositions including antiwear agents. As set forth above, Nakazato teaches that the lubricating oil compositions, which are suitable for use as diesel engine oils, may contain other auxiliary additives such as phosphoric acid esters, phosphorous acid esters and organic amide compounds, such as oleylamide, in amounts ranging from 0.001 to 3 weight %. The examiner maintains the position that it would have been obvious to the skilled lubricating oil formulator to have added any conventional engine oil additive to the lubricating oil compositions of Yagishita if the known imparted properties were so desired. Applicants' invention set forth in independent claims 1 and 2 has been amended to include that component (D), the phosphorus-containing ashless anti-wear agent, is selected from the group consisting of amine phosphite salts of phosphorous acid esters. However, such amine phosphite salts are known in the art as friction modifiers as evidenced by Dasai, and as extreme pressure/anti-wear agents as evidenced by Ichihashi et al ["Ichihashi"].

Dasai discloses a lubricating oil composition comprising a base oil and from 0.01 to 5% by weight of a friction modifier which includes amine salts of phosphoric acid esters and amine salts of phosphorous acid esters which are represented by formulae (I), (II) and (III) in column 3. Phosphites are represented by formula (III) and the amine salts include oleylamines. See col. 4, lines 3-13. Ichihashi disclose a lubricant composition comprising a phosphorus-based extreme pressure additive which includes phosphite esters and phosphate esters and amine salts thereof. See column 3, lines 55 to column 4, line 58. Oleylamine is set forth in line 36. Thus having the prior art references before the inventors at the time the invention was made it would have been obvious to have added the amine phosphite salt of Dasai or Ichihashi to the oil composition of Yagishita if the additive's known imparted properties were so desired. The results set forth in

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the Declaration have been carefully considered; however, the examiner is of the position that it would be expected that differing anti-wear agents (phosphites and amine phosphate salts) would have differing results in anti-wear performance. The examiner is of the position that the results presented are not sufficient to rebut the established *prima facie* case of obviousness.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ellen M. McAvoy whose telephone number is (571) 272-1451. The examiner can normally be reached on M-F (7:30-5:00) with alt. Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

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like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ellen M McAvoy/
Ellen M McAvoy
Primary Examiner
Art Unit 1797

EMcAvoy
April 29, 2008